Historical Landings and Nominal Fishing Effort

![Graph showing historical landings and nominal fishing effort from 1955 to 2020. The graph plots 1,000 Metric Tons on the y-axis and 1,000 Vessel-Ton-Weeks on the x-axis. The lines represent Gulf menhaden landings and nominal fishing effort. There are peaks and troughs indicating fluctuations over time.]
Final Landings for the 2020 Gulf Menhaden Fishing Season

• 413,855 metric tons, or 1,362 million standard fish
  • Decrease of **15.0%** from 2019 (486,980 mt)
  • Increase of **17.0%** from previous 5-yr average (498,974 mt)
2020 Gulf Menhaden Season

• Three menhaden factories active in the northern Gulf of Mexico in 2020:
  • Moss Point, MS; Empire, LA; and Abbeville, LA
• Warm, wet winter and wetter-than-average spring
• Below-average Gulf of Mexico Hypoxic Zone
  • Third-lowest since measurements began
• Very active hurricane season
  • Six active tropical cyclones in Gulf of Mexico
# 2020 Landings by Month

<table>
<thead>
<tr>
<th>Month</th>
<th>Landings (Metric tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>April</td>
<td>10,919</td>
</tr>
<tr>
<td>May</td>
<td>74,562</td>
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<tr>
<td>June</td>
<td>88,366</td>
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<tr>
<td>July</td>
<td>74,419</td>
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<tr>
<td>August</td>
<td>96,213</td>
</tr>
<tr>
<td>September</td>
<td>39,225</td>
</tr>
<tr>
<td>Oct./Nov.</td>
<td>30,152</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>498,974</strong></td>
</tr>
</tbody>
</table>
2020 Landings by Month

[Graph showing 2020 landings by month with lines for 2015 to 2020, with 2019 and 2020 data specifically highlighted.]
Vessel Participation in 2020

• 33 vessels fished in 2020
  • 28 regular factory vessels
  • Five run boats

• 265,200 vessel-ton-weeks in 2020
  • Decreased 13.6% from 2019 (305,700 vessel-ton-weeks)
Age Compositions in 2020 by Port
from preliminary catch-at-age matrix

• Critical equipment failure at the beginning of the 2018 fishing season
• Data collection complete for all years
  • Age estimation complete for 2018, 2019
• Results of age estimation research are in press
• 2020 age estimates will be started soon
How do 2020 landings compare to the March 2020 Forecast?

• 2020 Final Landings 413,855 mt

• March 2020 Forecast 434,000 mt w/ 290,400 v-t-wks of nominal effort
  • Actual landings 4.6% lower

• “Hindcast” for 2020 399.100 mt w/ 265,100 v-t-wks of nominal effort
  • Actual landings 3.7% higher
2021 Gulf Menhaden Forecast

• For 2021, we expect:
  
  • As in 2021, three factories active: Moss Point, Empire, and Abbeville
  
  • 34 vessels: 29 regular factory vessels, up to 5 run boats, and one bait boat
  
  • We estimate 294,800 vessel ton weeks of nominal fishing effort in 2021
  
  • Forecast for 2021 landings of 424,500 mt
    • w/ 80% CI of 307,000 and 542,000 mt
2021 Gulf Menhaden Forecast, Continued

![Graph showing forecast landings and forecast effort](chart.png)

- **Forecast Landings**
- **Upper 80% CI**
- **Lower 80% CI**
- **2021 Forecast Point Estimate**

Forecast Effort (Vessel-Ton-Weeks)

Forecast Landings (1,000 Metric Tons)
2021 Gulf Menhaden Forecast, continued

• Forecast Report available end of this week at NMFS Fishery Market News website:

  https://www.st.nmfs.noaa.gov/commercial-fisheries/market-news/index

• Note to Industry:
  • Guidebooks to be sent to factories by next week.
  • Blank CDFR forms will be sent once printing is complete.
2021 Port Sampling

- Port Samplers have been chosen

- Port Sampler Electronic Reporting upgrade underway
  - Electronic Fish Measuring Boards purchased, new procedure complete
- Travel cancelled through this quarter, training to be completed via videoconferencing